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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,581	03/17/2005	Takuya Monju	450104-05323	2908

7590 09/26/2005
William S Frommer
Frommer Lawrence & Haug
745 Fifth Avenue
New York, NY 10151

EXAMINER

SPEER, TIMOTHY M

ART UNIT PAPER NUMBER

1774

DATE MAILED: 09/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/506,581

Applicant(s)

MONJU, TAKUYA

Examiner

Timothy M. Speer

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 09/03/04 has been considered by the Examiner. A copy of the 1449 initialed, dated and signed by the Examiner is included herewith.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. Figure 7 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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The phrases "melting type," e.g., claim 1, lines 1, 4, etc., and "sublimation type," e.g., claim 3, lines 4, render the claims indefinite. The addition of the word "type" to an otherwise definite expression extends the scope of the expression so as to render the expression indefinite. *See* MPEP 2173.05(b).

With respect to claim 7, the recited structure is unclear, rendering this claim indefinite. It is not clear where the protective layer is formed, e.g., between the substrate and primer layer or between the primer layer and in layer. Same with claim 9, it is unclear where the protective layer is formed.

The phrase "main component," e.g., claims 1 and 9 is unclear, rendering these claims indefinite. It is not clear what percentage is intended by this phrase. For instance, does the recited copolymer need to present in an amount of at least 50% or simply comprise the largest percentage among any number of materials present?

Regarding claim 4, it is unclear how the primer layer can contain vinyl acetate of 10 mol% or more and 50 mol% or less. If applicant intends to claim a range, the Examiner suggests using conventional U.S. phrasing.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 1, 2, 4, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inaba (USPN 4,070,406).

Inaba teaches a thermal transfer recording medium comprising a base sheet, an adhesive layer and a meltable ink layer (abstract for instance). The adhesive layer may comprise a vinyl acetate copolymer, e.g., styrene-vinyl acetate copolymers, and thus meets the presently recited limitation of a primer layer (col. 4, lines 27-35, for example). Since this is the same material as presently claimed, the article will exhibit the presently claimed properties on use. Inaba further teaches a wide variety of ranges for the components of the adhesive layer, such as those wherein the vinyl acetate copolymer is the main component (col. 5, lines 11-28, for instance). Where, as here, the prior art teaches the general conditions of a claim, it is not considered inventive to discover optimum or workable ranges through routine experimentation. Thus, the present claims reciting that the copolymer is the "main component" are not considered to distinguish over Inaba in the absence of unexpected results (the same reasoning applies to instant claims 4 and 5).

Regarding claim 2, Inaba teaches that the meltable ink layer may include carbon black (col. 7, lines 42-43). Moreover, with respect to claim 6, Inaba teaches that the adhesive (primer) layer may include waxes (col. 5, lines 40-51, for instance).

Therefore, the present claims are considered to be prima facie obvious in view of the applied prior art reference.

8. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inaba, as discussed above, in view of Ueno (USPN 5,318,943).

Inaba fails to teach a thermal transfer medium comprising a protective layer portion (claim 7) or wherein the protective layer comprising at least one member selected from the group

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recited in claim 8. Ueno teaches that it is conventional in the art to apply protective layer to thermal transfer prints in order to provide a surface coating with high durability; such protective layers may be formed of materials including polyester resin or acrylic resin (col. 39, lines 44-49, for instance). Therefore, it would have been obvious to one having ordinary skill in the art to include a protective layer portion in the thermal transfer medium of Inaba, in order to impart durability to the transferred image. Such a construction would result in the printed matter recited in instant claim 9. Therefore, the present claims are considered to be prima facie in view of the applied combination of prior art references.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy M. Speer whose telephone number is 571-272-8385. The examiner can normally be reached on M-Th, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena L. Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


RENA DYE
SUPERVISORY PATENT EXAMINER

A.U. 1774 9/17/05